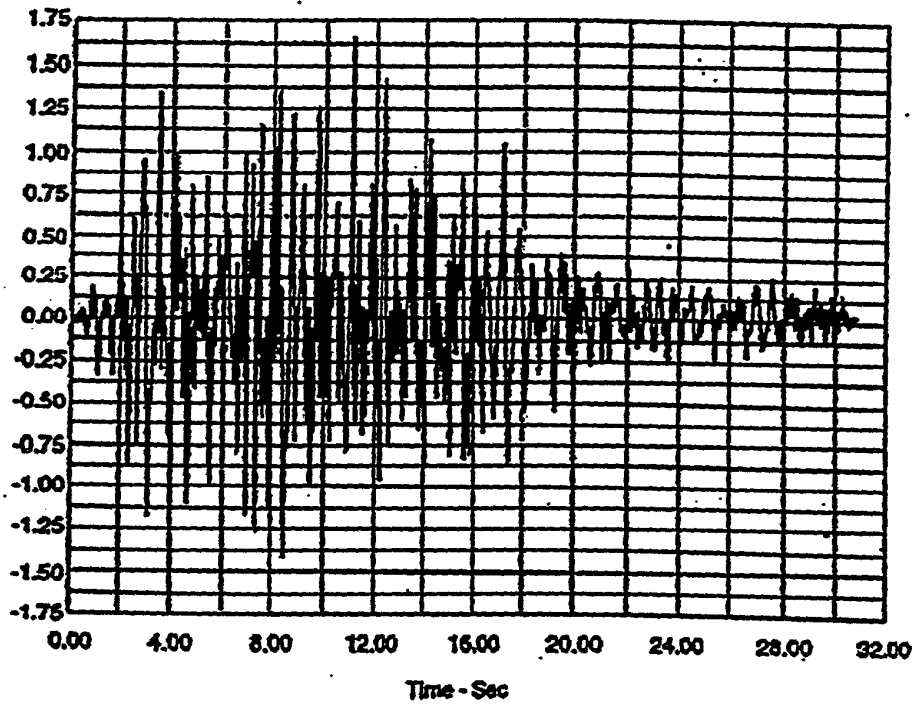
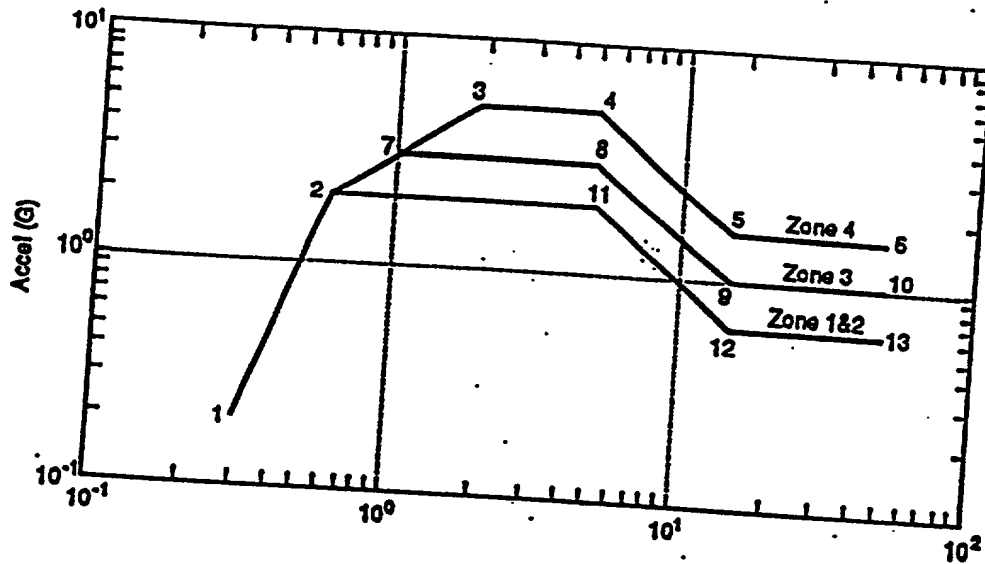


002001 005005 Acceleration - g



Earthquake Synthesized Waveform - VERTEQII

Fig 1A



| Coordinate Point | Frequency (Hz) | Values for Upper Floor Acceleration (g) | Coordinate Point | Frequency (Hz) | Values for Upper Floor Acceleration (g) |
|------------------|----------------|---|------------------|----------------|---|
| Zones 1 and 2    |                |   | Zone 4           |                |   |
| 1                | 0.3            | 0.2                                     | 1                | 0.3            | 0.2                                     |
| 2                | 0.6            | 2.0                                     | 2                | 0.6            | 2.0                                     |
| 11               | 5.0            | 2.0                                     | 3                | 2.0            | 5.0                                     |
| 12               | 15.0           | 0.6                                     | 4                | 5.0            | 5.0                                     |
| 13               | 50.0           | 0.6                                     | 5                | 15.0           | 1.6                                     |
| Zone 3           |                |   | 6                | 50.0           | 1.6                                     |
| 1                | 0.3            | 0.2                                     |                  |                |   |
| 2                | 0.6            | 2.0                                     |                  |                |   |
| 7                | 1.0            | 3.0                                     |                  |                |   |
| 8                | 5.0            | 3.0                                     |                  |                |   |
| 9                | 15.0           | 1.0                                     |                  |                |   |
| 10               | 50.0           | 1.0                                     |                  |                |   |

Fig 1B

200

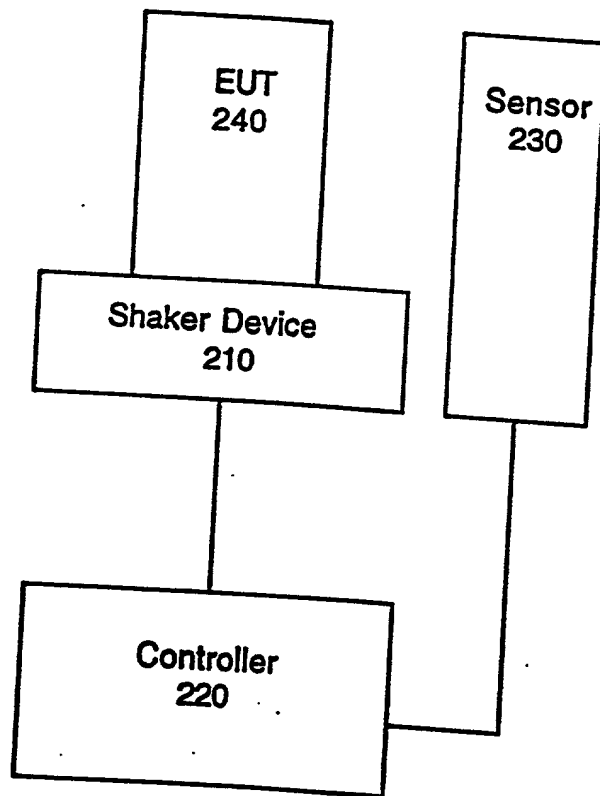
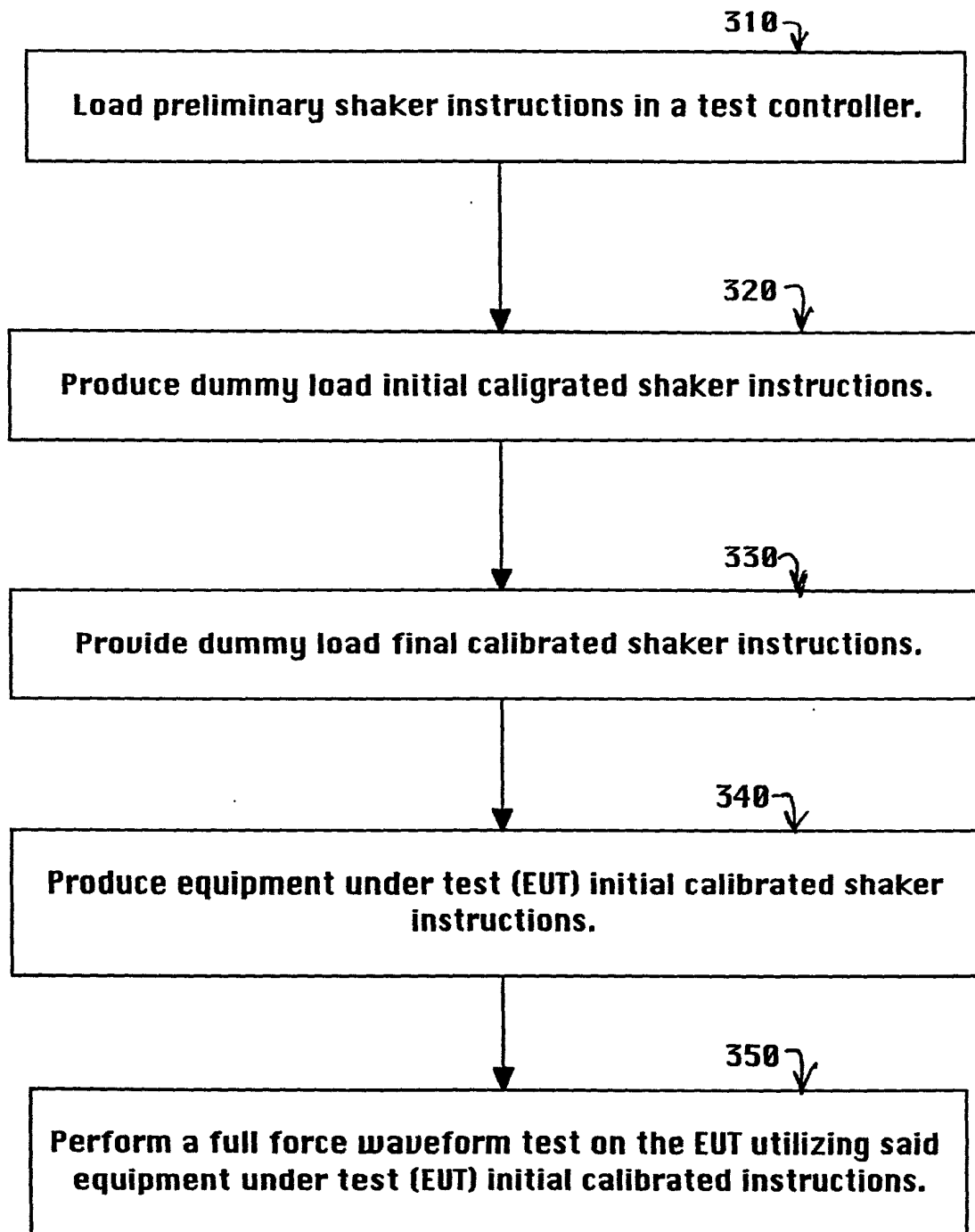


FIG 2

300



**FIG. 3A**

321

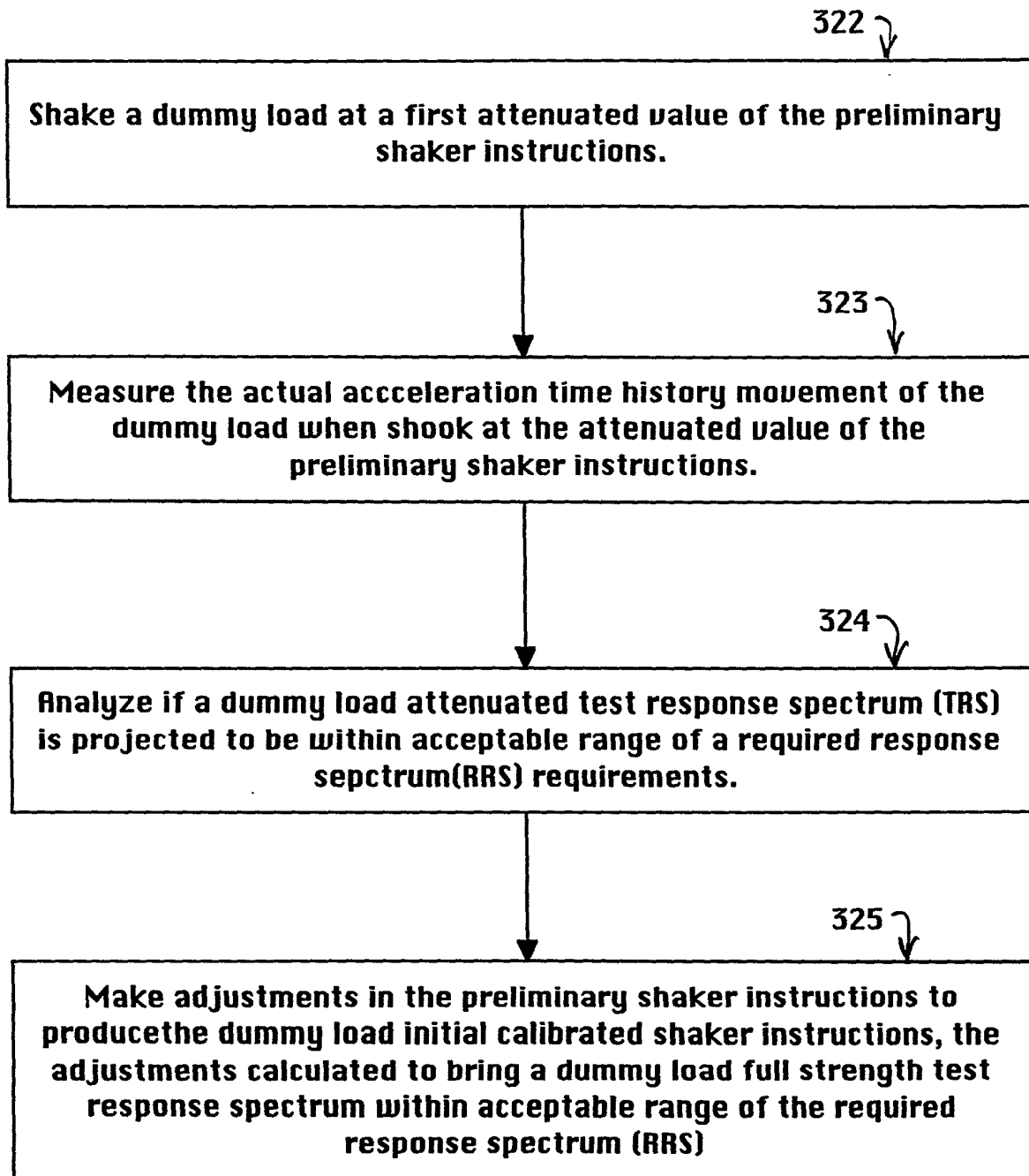


FIG 3B

331

332 ↘

**Shake a dummy load at full strength value of the dummy load initial calibrated shaker instructions.**

333 ↘

**Measure the actual acceleration time history movement of the dummy load when shook at the full strength value of the dummy load initial calibrated shaker instructions.**

334 ↘

**Determine if the dummy load full strength test response spectrum (TRS) is within an acceptable range of the required response spectrum (RRS).**

335 ↘

**Make adjustments in the dummy load initial calibrated shaker instructions to produce the dummy load final calibrated shaker instructions, the adjustments calculated to bring a test response spectrum (TRS) within an acceptable range of the required response spectrum (RRS).**

**FIG 3C**

341

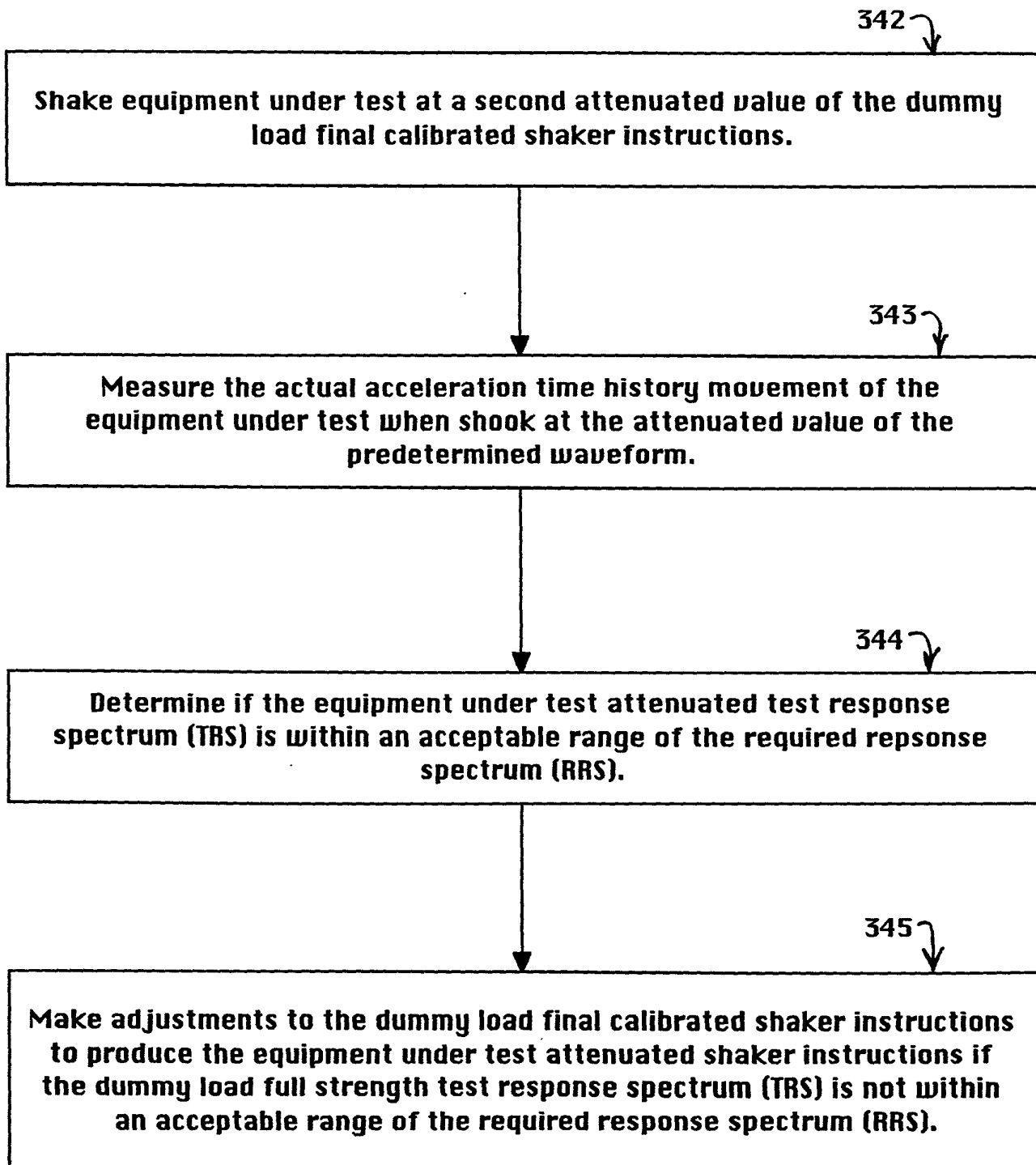


FIG 3D

351

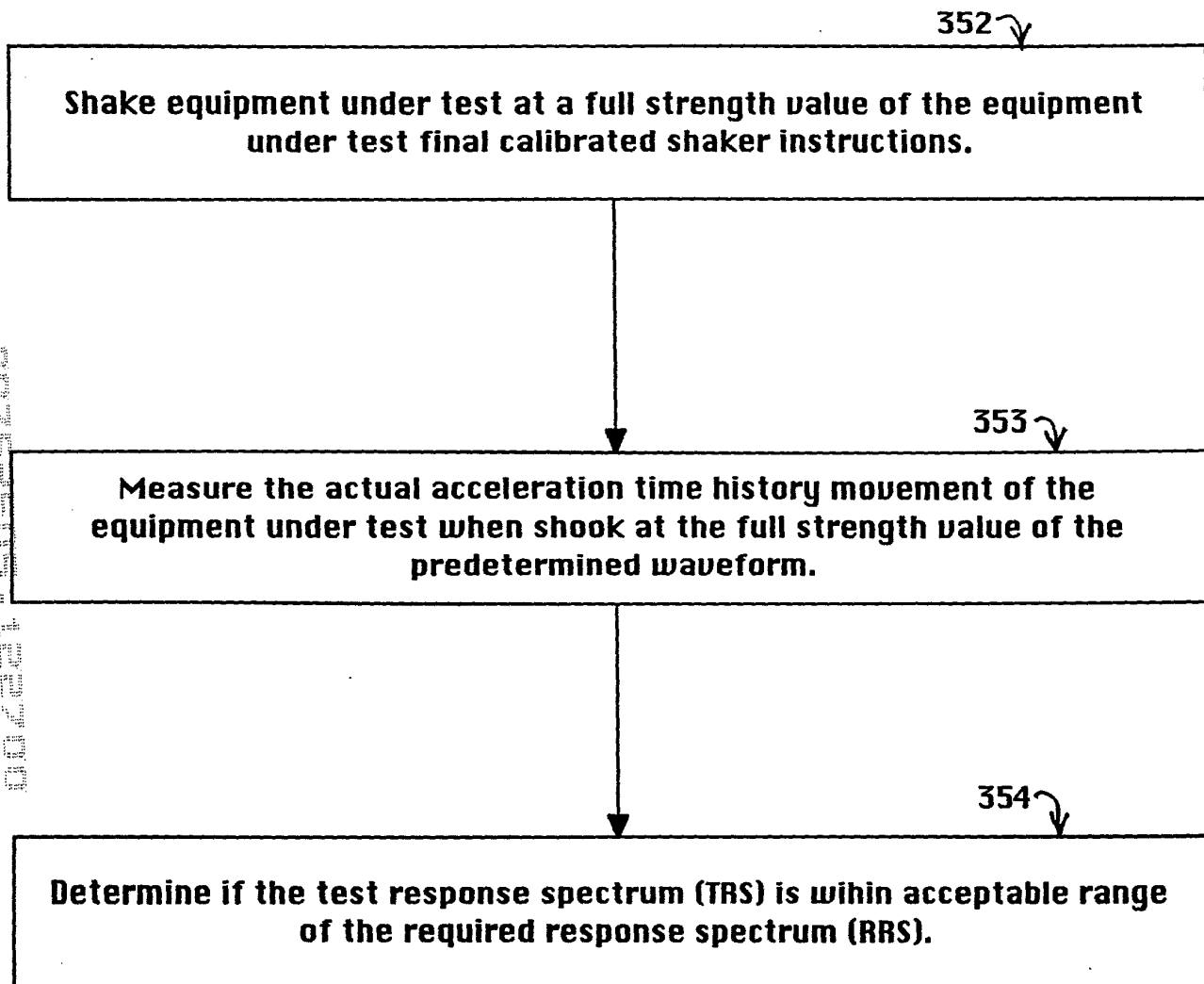


FIG 3E



400

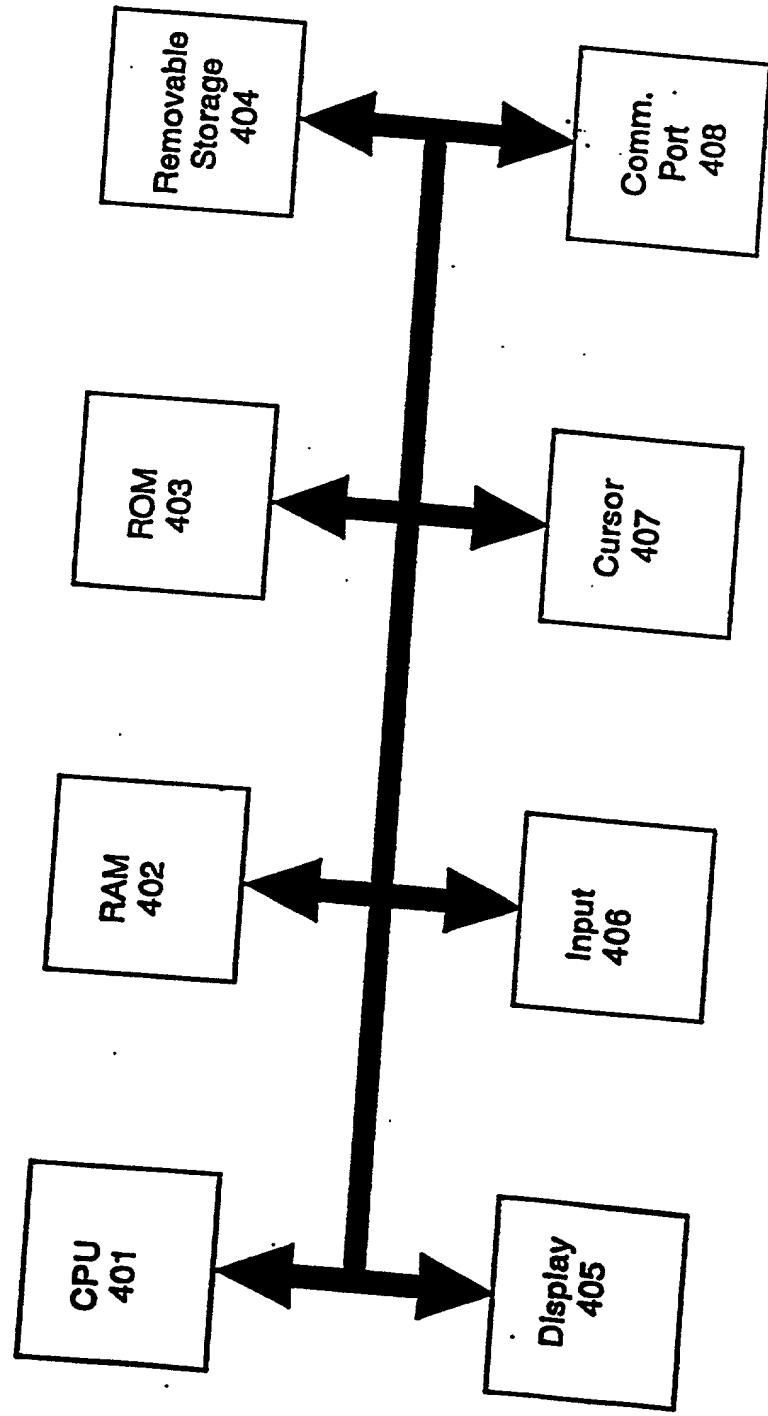


FIG 4

500

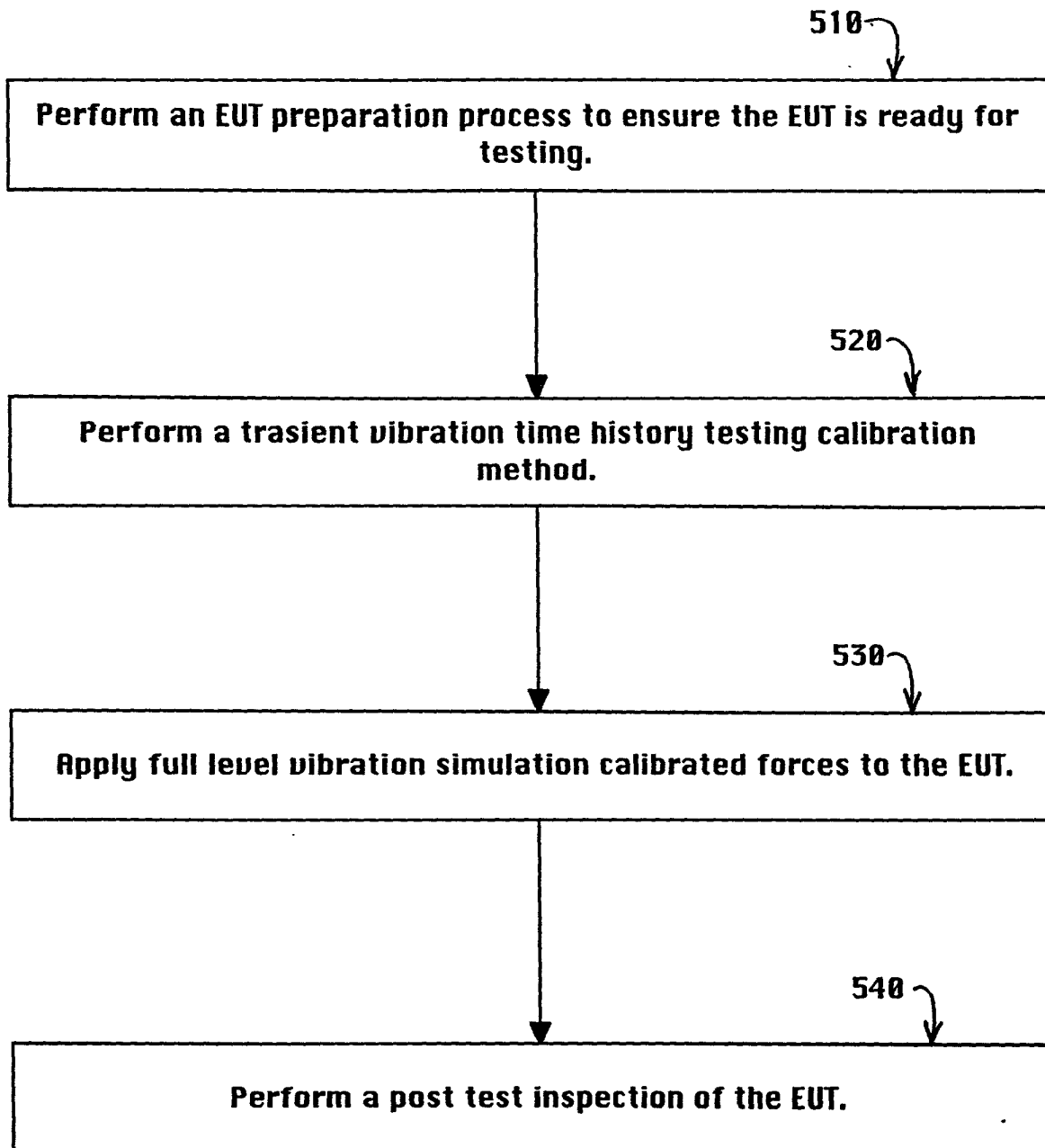
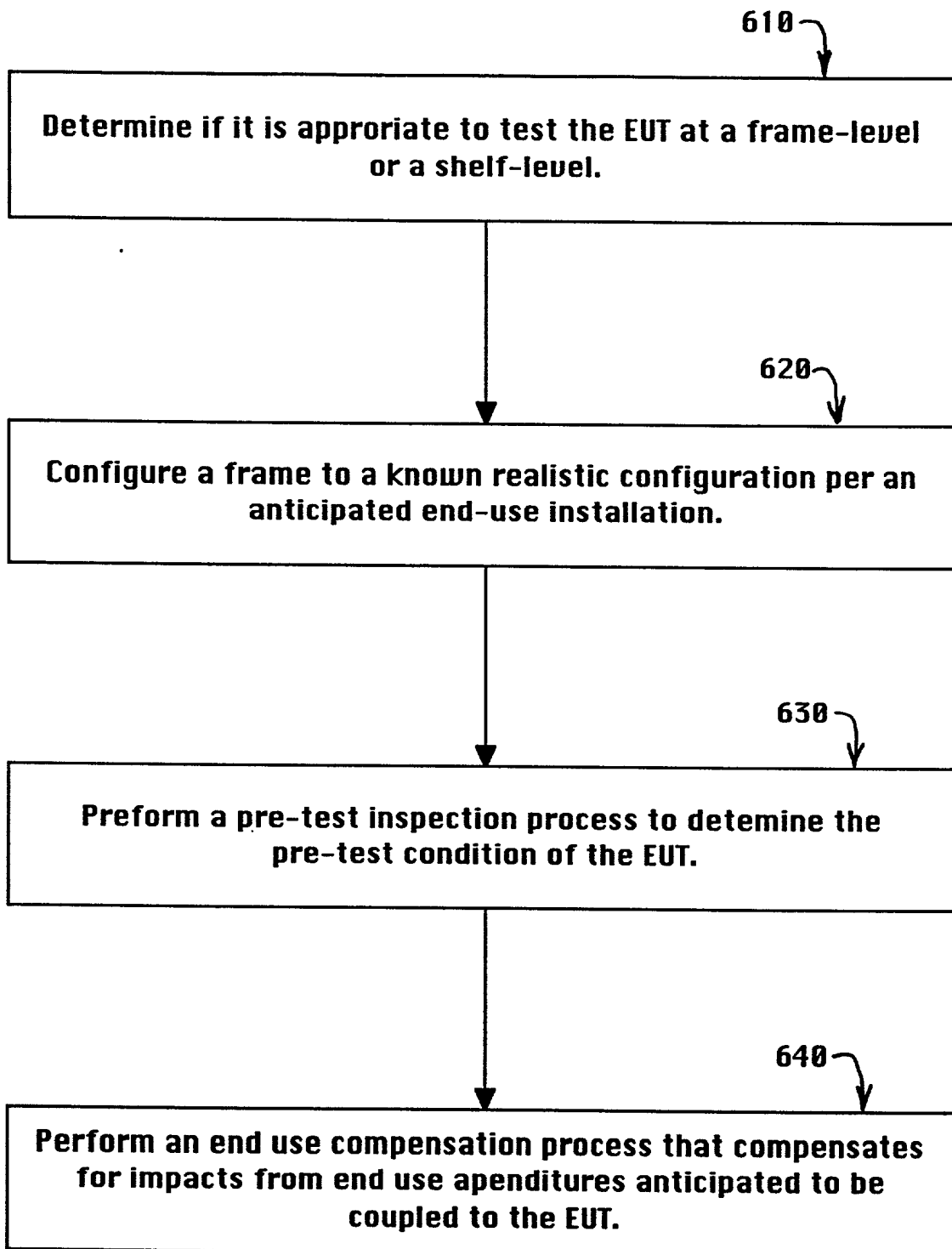


FIG 5

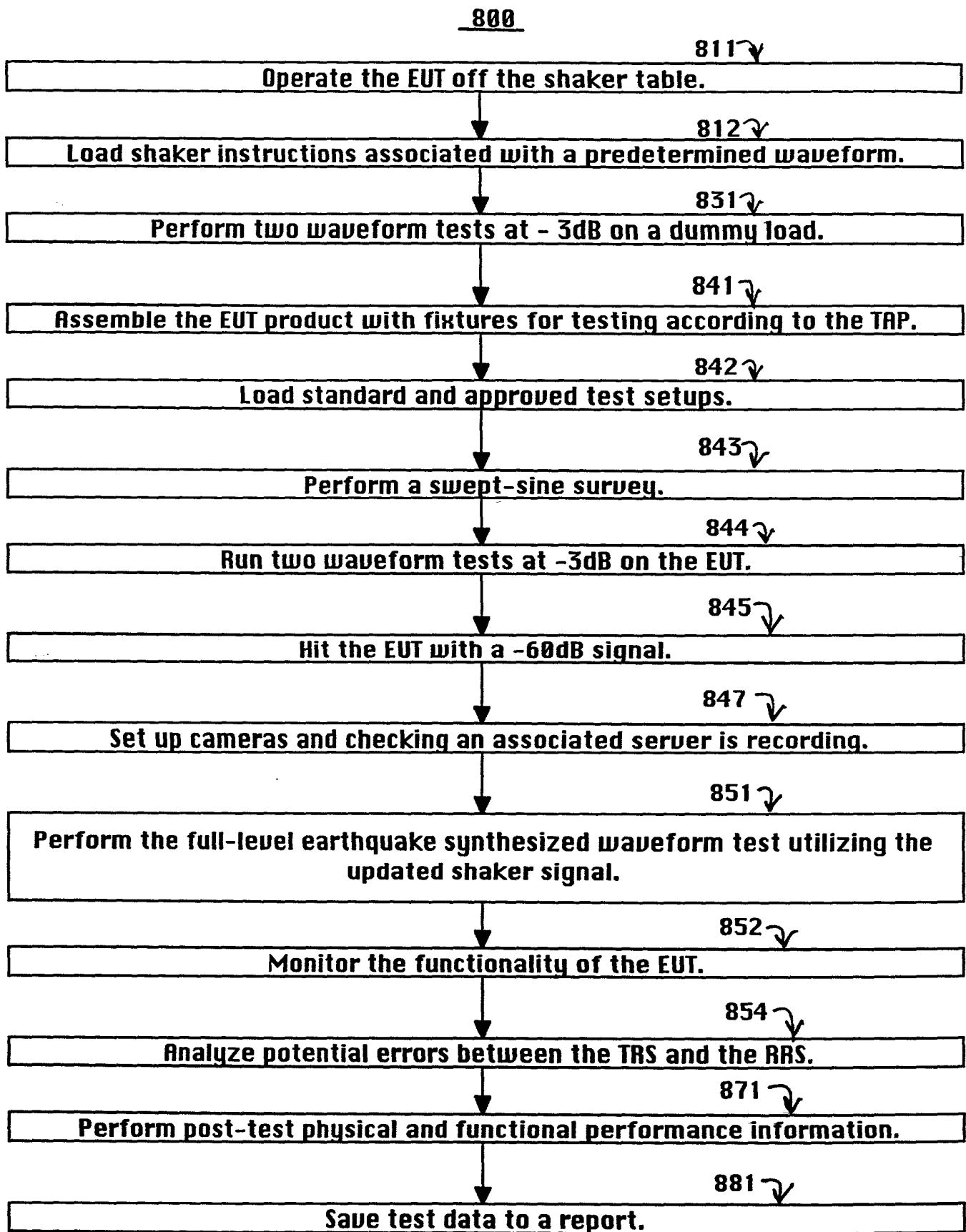
600



**FIG 6**

| Test Parameter           | Performance Criteria                             | Test Tolerance                            |
|--------------------------|--|---|
| VERTEQUI waveform        | TRS shall meet or exceed RRS                     | TRS less than 30% over RRS from 1 to 7 Hz |
| Acceleration             | synthesized waveform 1.6 G's peak for 30 seconds | Not Applicable                            |
| data sample rate         | 200 Hz   | Not Applicable                            |
| test frame system weight | 435 lbs (approximately)                          | +/- 5%                                    |
| load-cell torque         | up to 65 ft-lbs                                  | +/- 1 ft-lb                               |
| Displacement (rack top)  | 76.2 mm maximum                                  | +/- 5 mm                                  |

FIG 7



**FIG 8**

| Test Parameter           | Performance Criteria    | Test Tolerance |
|--------------------------|-------------------------|----------------|
| Frequency Range          | 1 to 50 Hz              | Not Applicable |
| Sweep Rate               | 1.0 octave/minute       | Not Applicable |
| Acceleration             | 0.2 G's                 | +/- 0.02 G's   |
| data sample rate         | 200 Hz                  | Not Applicable |
| test frame system weight | 435 lbs (approximately) | +/- 5%         |

FIG 9

| Model #  | Code Name | Business Unit | BU Contact   |
|--|-----------|---------------|--------------|
| Date   | Vertical  | Front-to-Back | Side-to-Side |
| Time   |           |               |              |
| Test Engineer or Technician                            |           |               |              |
| Frame Top Resonant Frequency (Hz)                      |           |               |              |
| EUT Resonant Frequency (Hz)                            |           |               |              |
| Peak Acceleration Response at the top of the Frame (G) |           |               |              |
| Displacement (Inches or mm)                            |           |               |              |
| Doors, Covers, Panels                                  |           |               |              |
| Cracks, Buckles, Visual Inspection                     |           |               |              |
| Bolt or Anchor Torque values (ft-lb)(4)                |           |               |              |
| Load Cell values (lb, all 4)                           |           |               |              |
| LED Status during the Test                             |           |               |              |
| Diagnostic or software function during the Test        |           |               |              |
| Comments   |           |               |              |

FIG 10